IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-11. (Canceled)

12. (Currently Amended) A decoding apparatus configured to decode compression-encoded video data including a variable length code, comprising:

a plurality of decompression devices configured to decompress compression-encoded video data corresponding to a plurality of channels, respectively, each of the decompression devices including:

a variable length decoder which decodes the variable length code to output a zero-run length and a nonzero coefficient;

an inverse quantizer which inverse-quantizes the nonzero coefficient to output an inverse-quantized result;

a zero-run reconstruction processor which reconstruct zero coefficients corresponding to the zero-run length; and

a FIFO (First-In First-Out) memory arranged between the inverse quantizer and the zero-run reconstruction processor and configured to store the zero-run length data and nonzero coefficients, the memory operating with first-in first-out and having a memory capacity for storing coefficients contained in a plurality of blocks;

a plurality of parameter extractors provided corresponding to the ~~decoding processors~~ decompression devices, and configured to generate parameters concerning one macro-block every time the variable length decoder included in each of the ~~decoding processors~~ decompression devices completes decoding of one block; and

an inverse discrete cosine transformer which subjects the coefficients from the ~~decoding processors~~ decompression devices to inverse discrete cosine transformation to obtain transformed coefficients; and

a motion compensator which subjects the transformed coefficients to a motion compensation in accordance with the parameters concerning one block input from the parameter extractors alternately.

13. (Original) An apparatus according to claim 12, wherein the variable length decoder decodes the variable length code corresponding to a macro block including a predetermined number of blocks.

14. (Currently Amended) An apparatus according to claim 12, wherein the zero-run reconstruction [[device]] processor includes a buffer memory configured to write in the zero coefficients and nonzero coefficients therein at a write-in speed and read out them therefrom at a readout speed higher than the write-in speed.

15. (Original) An apparatus according to claim 12, wherein if nonzero coefficient does not exist at a final position of a block when the inverse quantizer receives a block end signal indicating the end of the block from the variable length decoder, the inverse quantizer generates a zero coefficient as the final DCT coefficient of the block.

16. (Original) An apparatus according to claim 12, wherein the variable length decoder stops its output in units of one coefficient when the inverse quantizer is unreceivable the zero-run length and nonzero coefficient from the variable length decoder.

17. (Original) An apparatus according to claim 12, wherein every time the inverse quantizer receives the zero-run length from the variable length decoder, the inverse quantizer accumulates a value obtained by adding "1" to the zero-run length and generates scan address data indicating a coefficient position of the nonzero coefficient, to generate quantization step size data every coefficient position based on the scan address data and scan pattern data indicating the scan pattern.

18. (Original) An apparatus according to claim 12, wherein the zero-run reconstruction processor includes an internal scan address counter increased one by one for each clock, and rejects next data input from the FIFO memory until a scan address received from the FIFO memory has coincided with a count value of the internal scan address counter, to generate the zero coefficients corresponding to the zero-run length.

19. (Original) an apparatus according to claim 12, which includes an intra-dc reconstruction device configured to reproduce dc components contained in the coefficients in intra-blocks in parallel with inverse quantization of the inverse quantizer.